

Session Summary

Advanced Concept and Time Transfer

- New Application using SLR instrumentation itself or part of it, has dealt papers were presented in this session. SLR as it was born/grown up in the field of geodesy, geodynamics, orbital mechanics since then interaction with many other fields to open new applications, users. In addition to obvious value of SLR as contribute to fundamental physics, geodesy, reference frame, each organization has own interest to use SLR for different application. Here we have 5 Oral papers and three Poster papers including Time Transfer, Communication, Radio Astronomy, Lidar and NEO tracking.

Time Transfer

- Progress on Laser Time Transfer Project Y Fumin, et.al.
China LTT mission on satellite to be hopefully approved in the next three months. Using dual SPAD, TDC module and LRA. Engineering model and test in progress. Experiment is now planed only within China network.
- T2L2 Update status E Samain,, F Delefie, et al
Time Transfer by Laser Link, aLASSO follow-on mission at last approved in 2008 JASON2 launch after 30 years when concept were made.
Test using engineering model for space segment and ground prototype on going. International networ model
- New application of kHz laser ranging: time transfer via Ajisai T Otsubo, H Kunitani, T Gotoh.
Simulation study for AJISAI TT revised after 14 years concept introduction in equation form, search algorithm, link budget for kHz SLR ERA.

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Communication

- Satellite Tracking Demonstration on Ground Using 100mm Aperture Optical Antenna for Space Laser Communication H Kunimori, M Okawa, H Watanabe, Y Yasuda.

SLR using Opt.com instruments present in a course of development of Next generation Laser Comm terminal, including present generation LEO-GND laser communication presented.

And as information, In other session, Free space laser comm over ocean a 10km distance experiment by NRL was presented.

Radio astronomy

Possibility of laser ranging support for the next-generation space VLBI mission, ASTRO-G T Otsubo, T Kubo-oka.

Mentioning SLR roll of POD at altitude higher than GPS orbit and engineering problem discussed.

LIDAR

- LIDAR experiments at the Space Geodesy Facility, Herstmonceux, UK G Appleby, R Jones, C Potter, P Gibbs.

NEO track&monitoring

- Electron Multiplying CCD Camera Performance Tests D Lewova, M Nemeč, I Procházka, K Haamal, G Kirchner, F Koidl, D Kuchařski,
- Possibility of the Near Earth Objects Distance Measurement with Laser Ranging Device M Abele, L Osipova. Wednesdayes